DVP-M35
RMT-D102E

SERVICE MANUAL

Chinese Model
Hong Kong Model
Spanish Model
E Model

Self Diagnostics Supported model

- **Refer to the OPERATION MANUAL (9-921-669-21) and DVD MECHANISM OPERATION MANUAL (9-921-669-31) for DVD mechanism.**

DVD VIDEO

COMPACT disc DIGITAL VIDEO

SPECIFICATIONS

CD/DVD player

Signal format system	PAL/NTSC

Audio characteristics

Frequency response	DVD (PCM96kHz): 2 Hz to 44 kHz (±0.5 dB)* DVD (PCM48kHz): 2 Hz to 22 kHz (±0.5 dB) CD: 2 Hz to 20 kHz (±0.5 dB)
Signal-to-noise ratio	More than 110 dB (LINE OUT (AUDIO 1, 2) connectors only)
Harmonic distortion	Less than 0.0028%
Dynamic range	DVD: More than 100 dB CD: More than 97 dB
Wow and flutter	Less than detected value (±0.001% W PEAK)

Outputs and inputs

	Jack type	Output level	Load impedance
LINE OUT (AUDIO 1, 2)	Phono jacks	2 Vrms (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	−18 dBm	Wave length: 660 nm
DIGITAL OUT (COAXIAL)	Phono jacks	0.5 Vp-p	75 ohms terminated
LINE OUT (VIDEO 1, 2)	Phono jack	1.0 Vp-p	75 ohms, sync negative
S VIDEO OUT 1, 2	4-pin mini DIN	Y: 1.0 Vp-p C: 0.3 Vp-p	75 ohms, sync negative 75 ohms terminated
PHONES	Phone jack	12 mW	32 ohms

General

Power requirements	220 to 240 V AC, 50 Hz 110 to 240 V AC, 50/60 Hz See page 2 for further informations.
Power consumption	18 W
Dimensions (approx.)	280 × 91 × 333 mm (w/h/d) incl. projecting parts
Mass (approx.)	3.4 kg
Operating temperature	5 °C to 35 °C
Operating humidity	5% to 90%

Supplied accessories

See page 6.

* When you play the PCM sound tracks with 96 kHz sampling frequency, the output signals from the DIGITAL OUT (OPTICAL, COAXIAL) connectors are converted to 48 kHz (sampling frequency) / 16 bits (quantization bits).

Design and specifications are subject to change without notice.

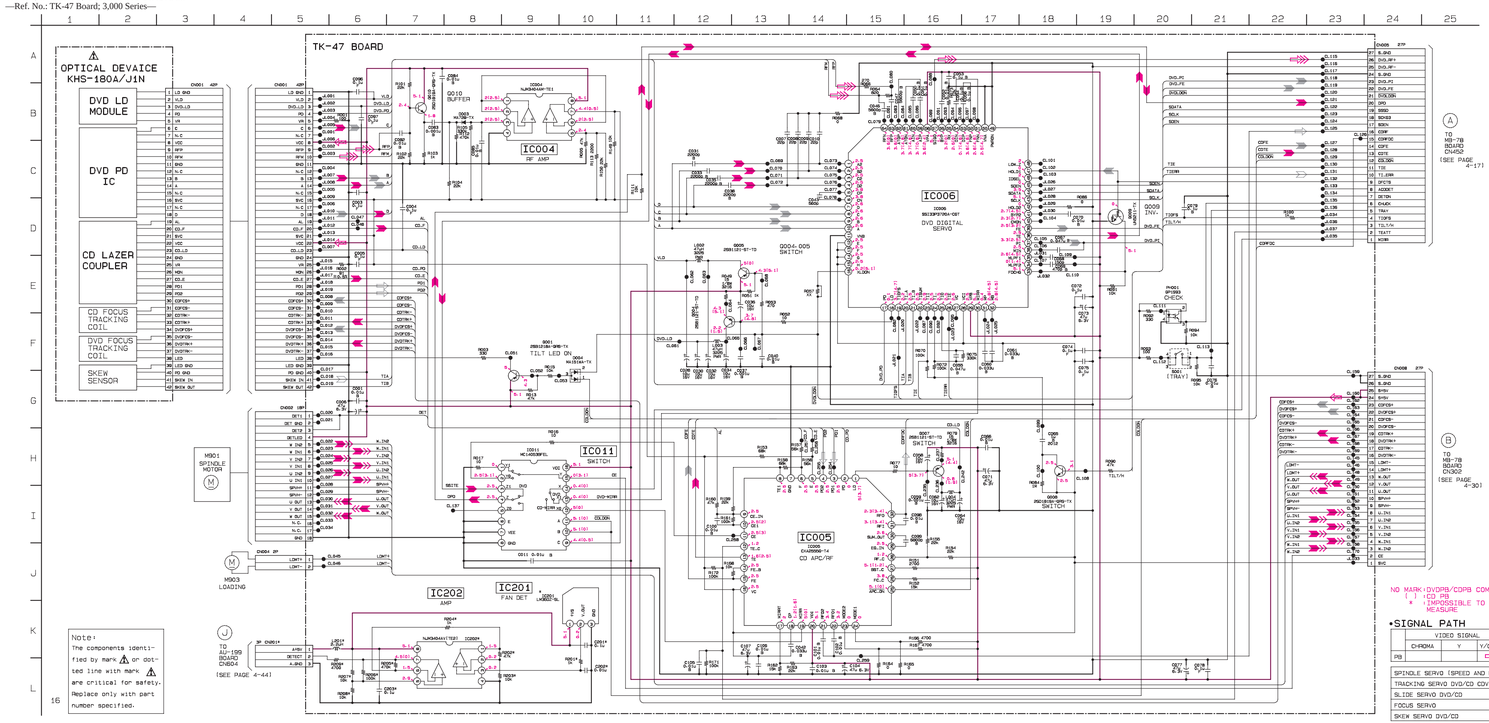
CD/DVD PLAYER

MICROFILM

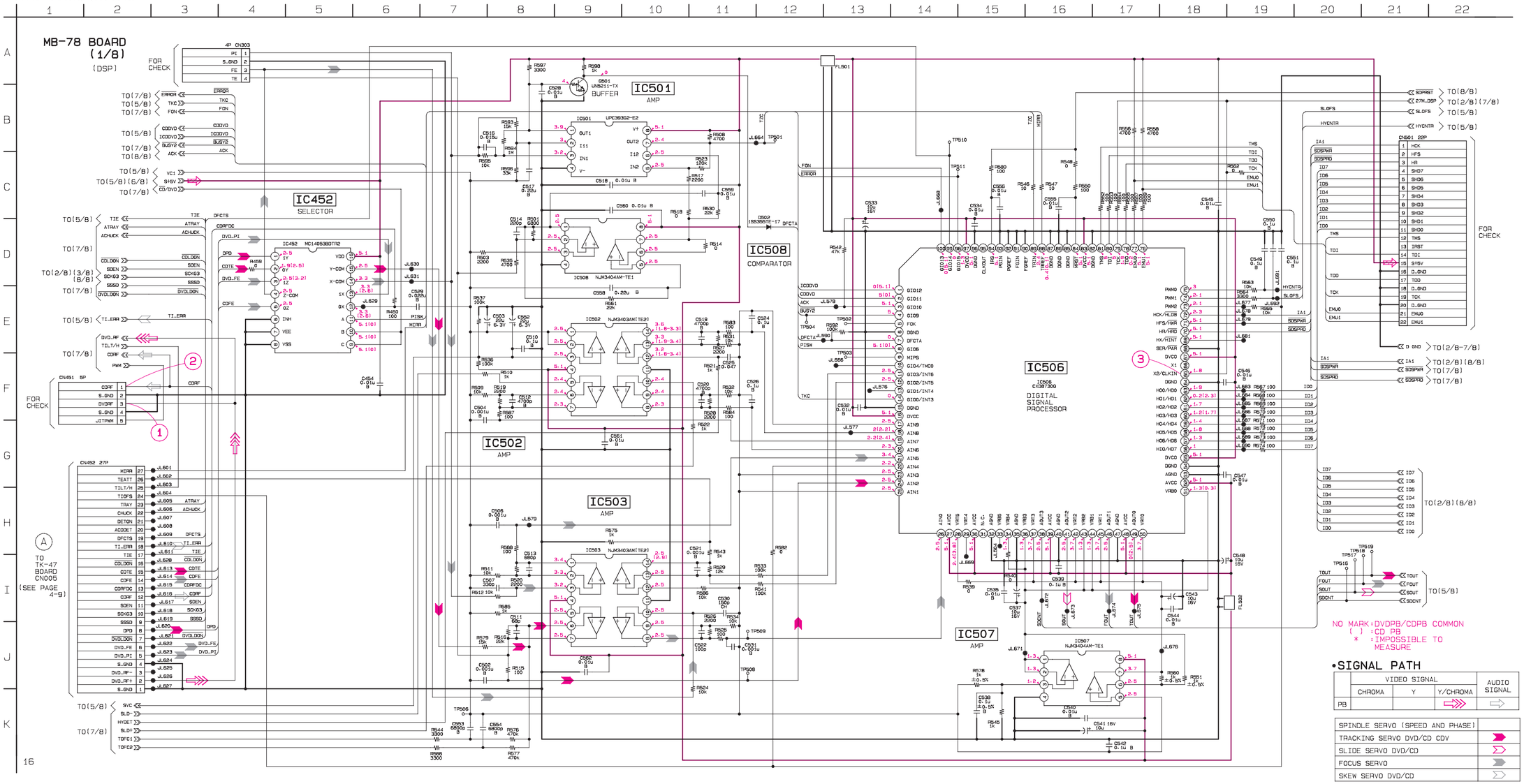
SONY®

TK-47 (RF, SERVO) SCHEMATIC DIAGRAM

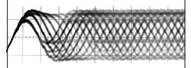
—Ref. No.: TK-47 Board; 3,000 Series—



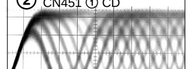
MB-78 (DSP) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—



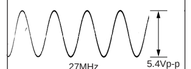
① CN451 ③ DVD



② CN451 ① CD

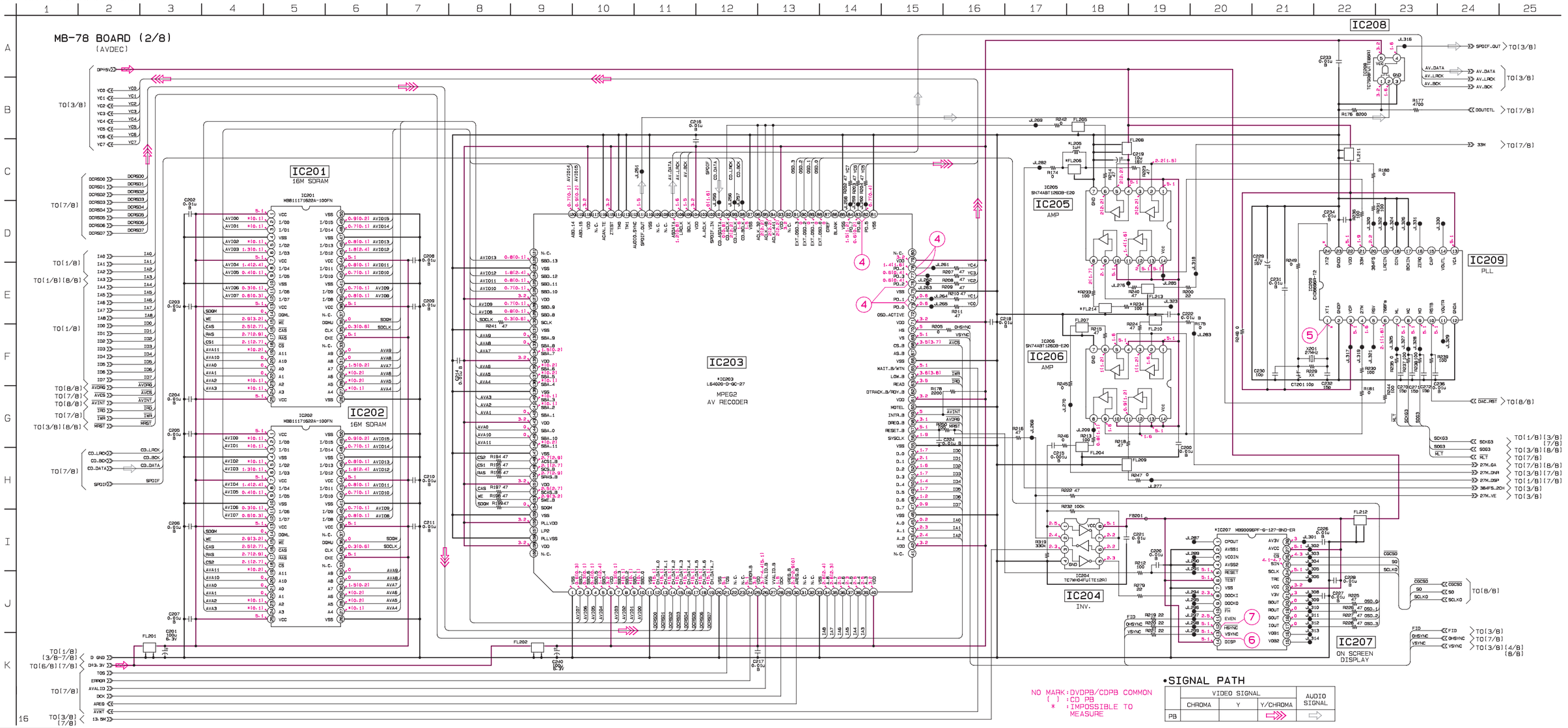


③ IC506 ㊺ DVD/CD



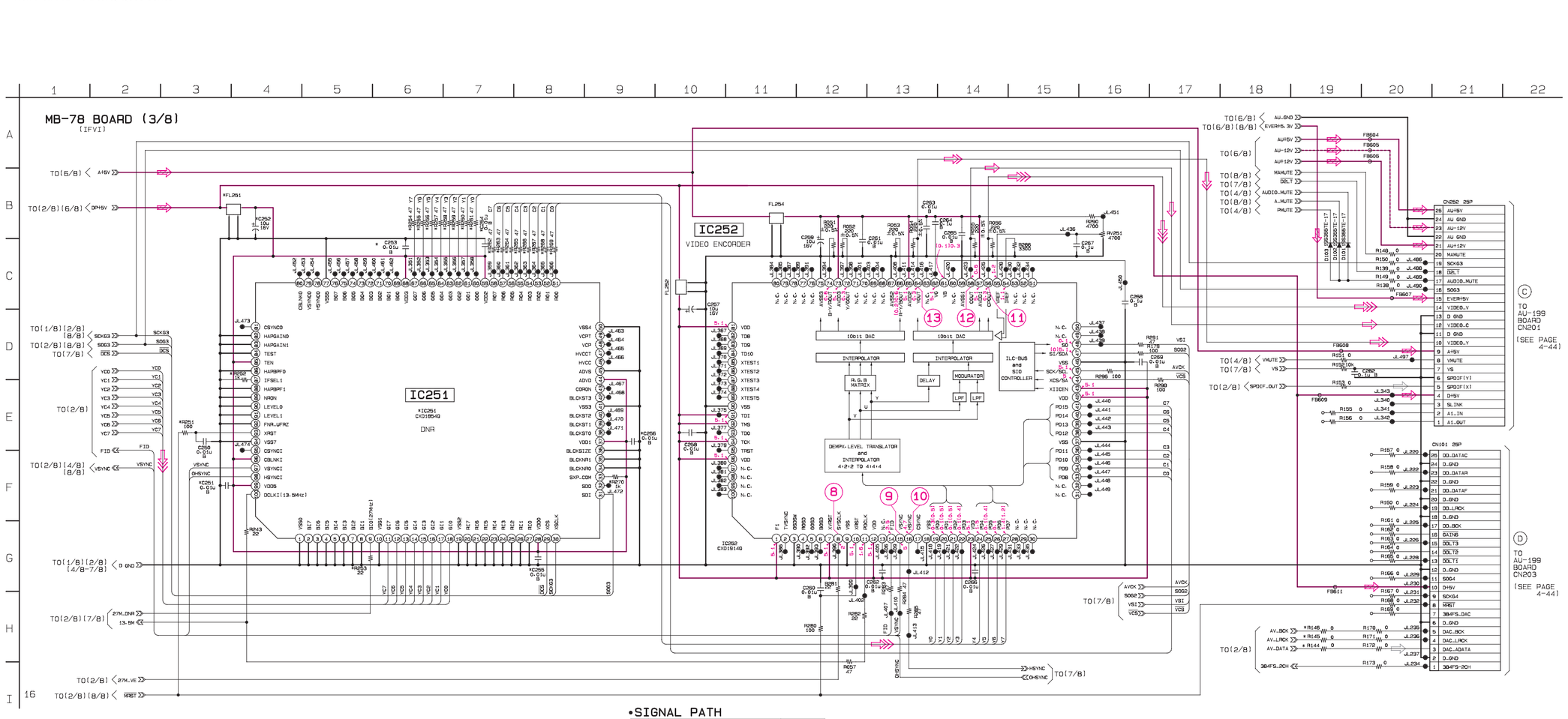
MB-78 (AV DECODER) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

• See page 4-13 for MB-78 BOARD printed wiring board.



MB-78 (VIDEO ENCODER) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

• See page 4-13 for MB-78 BOARD printed wiring board.



4 IC203 ⑬⑭⑮-⑱⑲⑳ DVD
1V/div 50µsec/div

9 IC252 ⑮ DVD
60Hz 5Vp-p

5 IC209 ① DVD/CD
27MHz 1.4Vp-p

10 IC252 ⑯
H 5Vp-p

6 IC207 ⑬ DVD
60Hz 5Vp-p

11 IC252 ⑯ DVD
H 1.2Vp-p

7 IC207 ⑫ DVD
30Hz 5Vp-p

12 IC252 ⑯ DVD
H 0.9Vp-p

8 IC252 ⑧
27MHz 5.4Vp-p

13 IC252 ⑭ DVD
H 1Vp-p

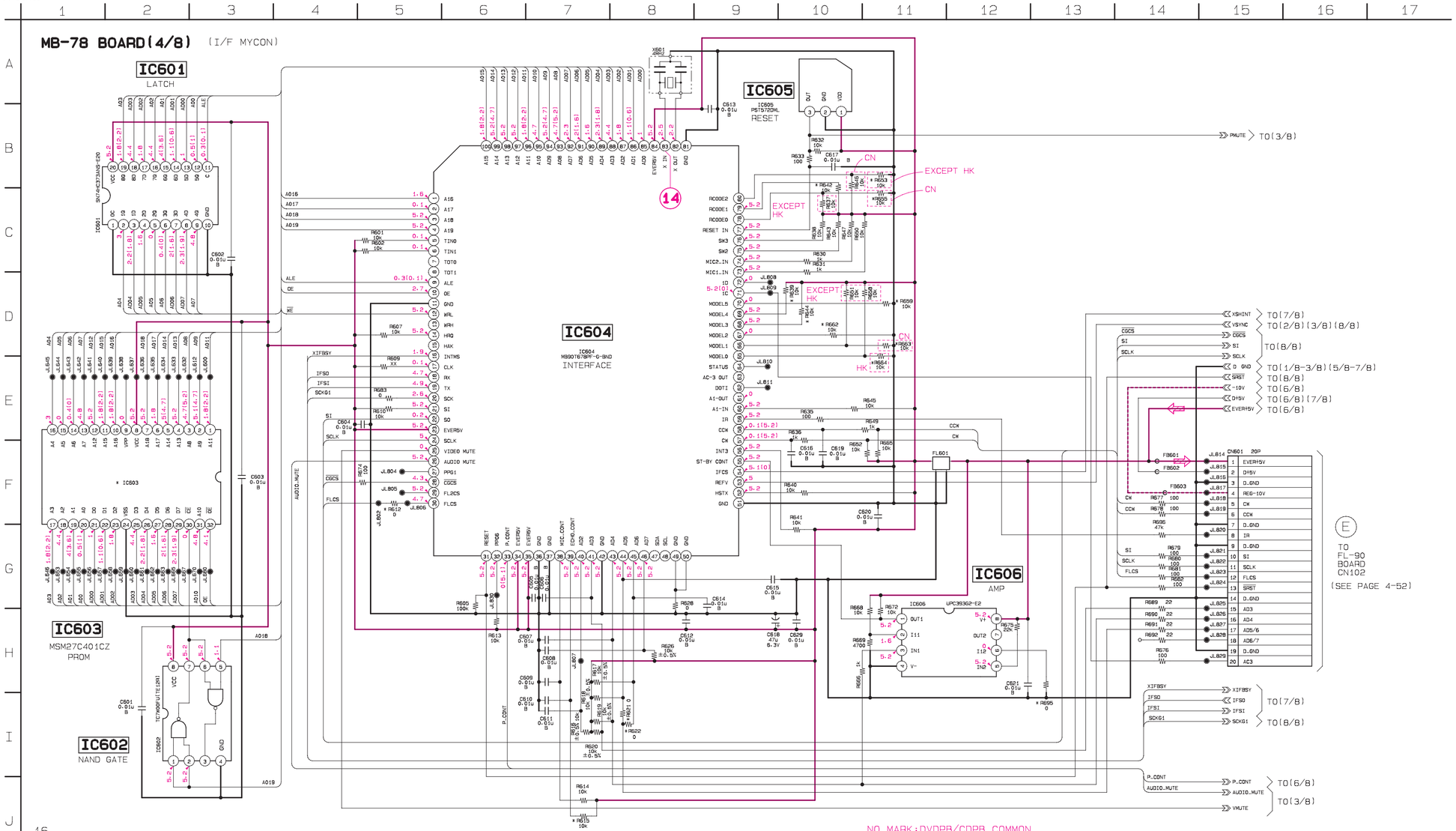
•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
PB	⇨	⇨	⇨	⇨

NO MARK : DVDPB/CDPB COMMON
( ) : CD PB
* : IMPOSSIBLE TO MEASURE

MB-78 (INTERFACE) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

• See page 4-13 for MB-78 BOARD printed wiring board.



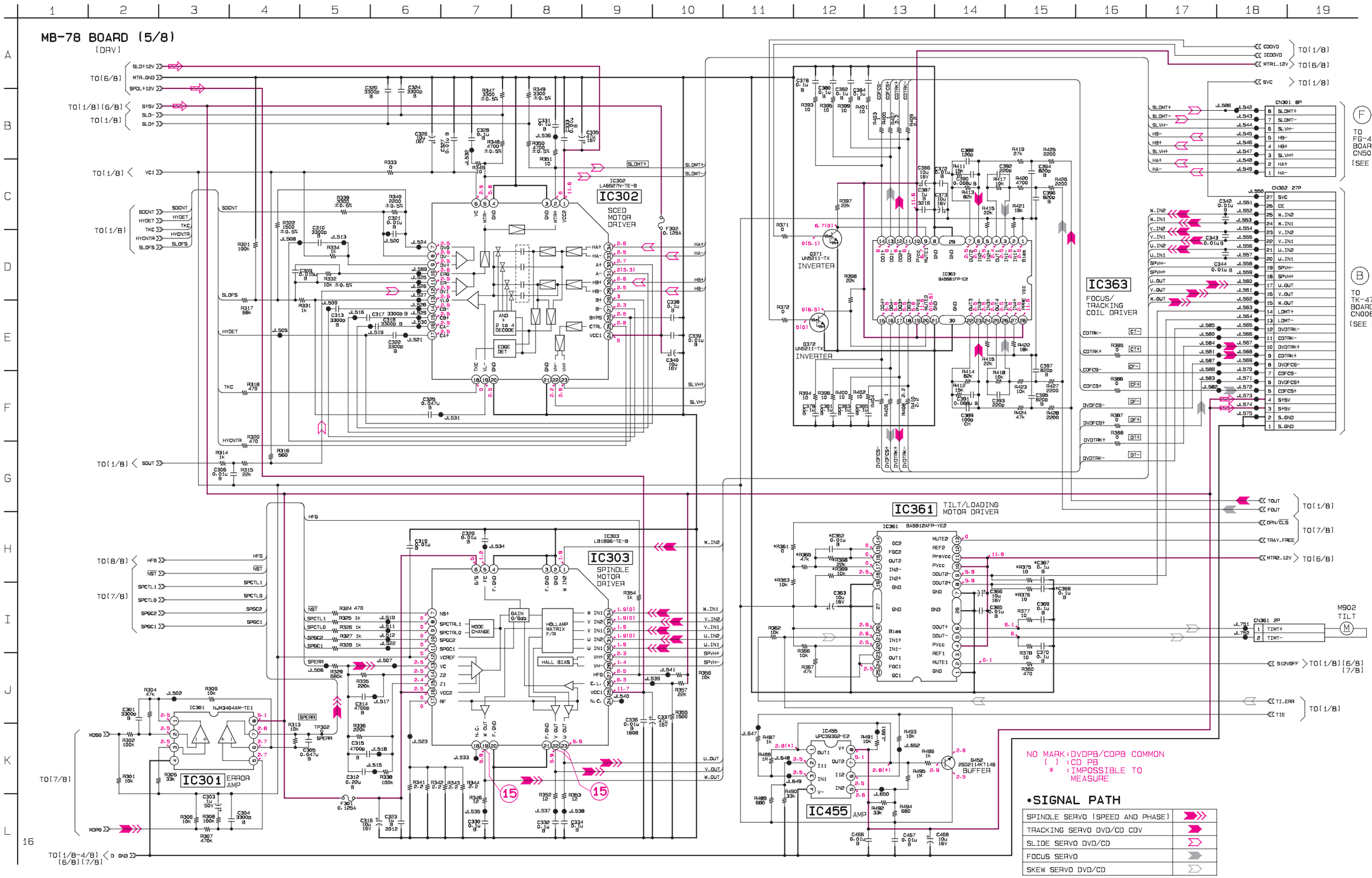
14 IC604 ㊸ DVD/CD
4MHz
5.8Vp-p

15 IC303 ⑲㉒㉓ DVD
7µsec
4Vp-p

15 IC303 ⑲㉒㉓ CD
11.9µsec
2.5Vp-p

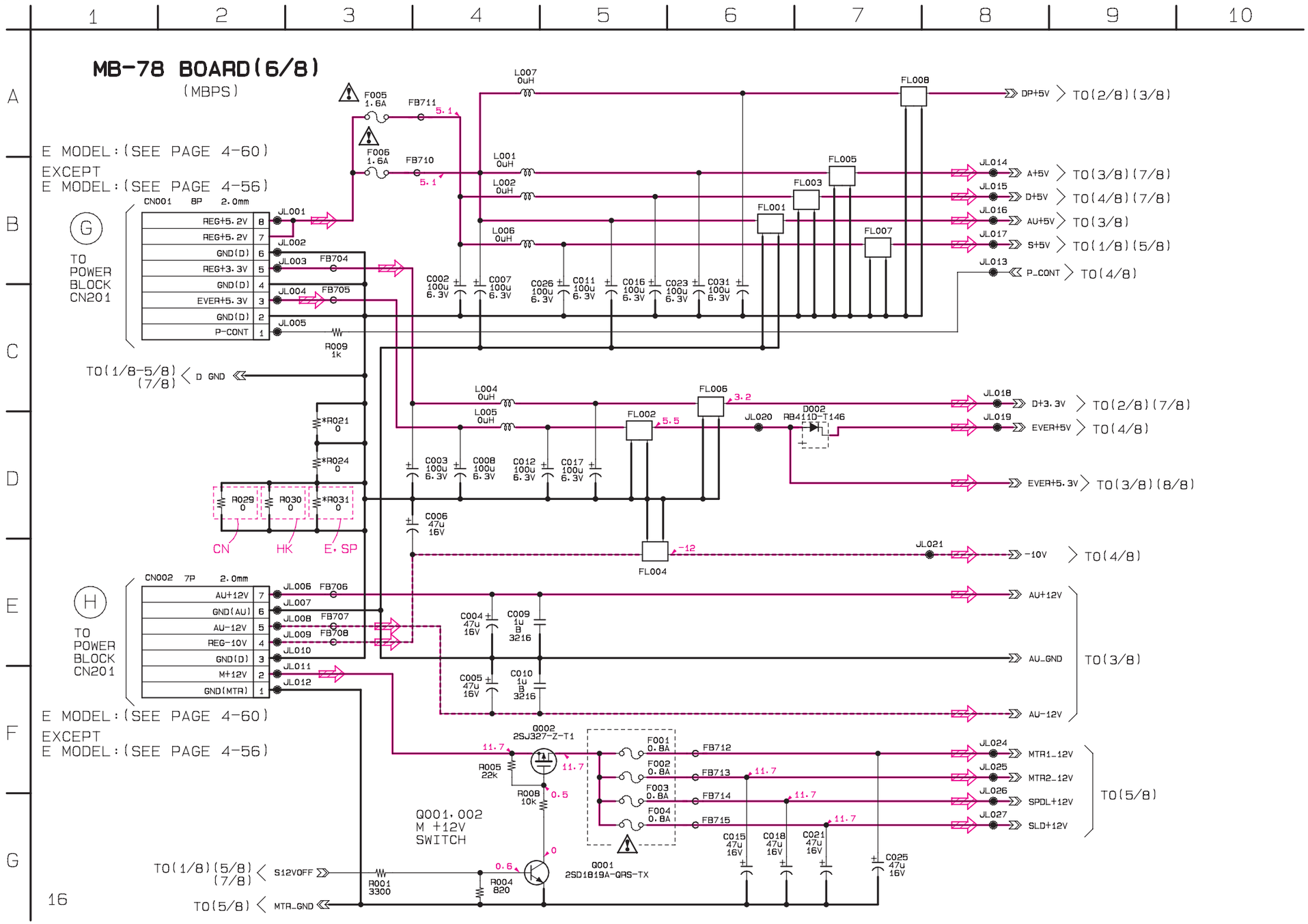
MB-78 (MOTOR DRIVE) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

• See page 4-13 for MB-78 BOARD printed wiring board.



MB-78 (POWER SUPPLY) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

• See page 4-13 for MB-78 BOARD printed wiring board.

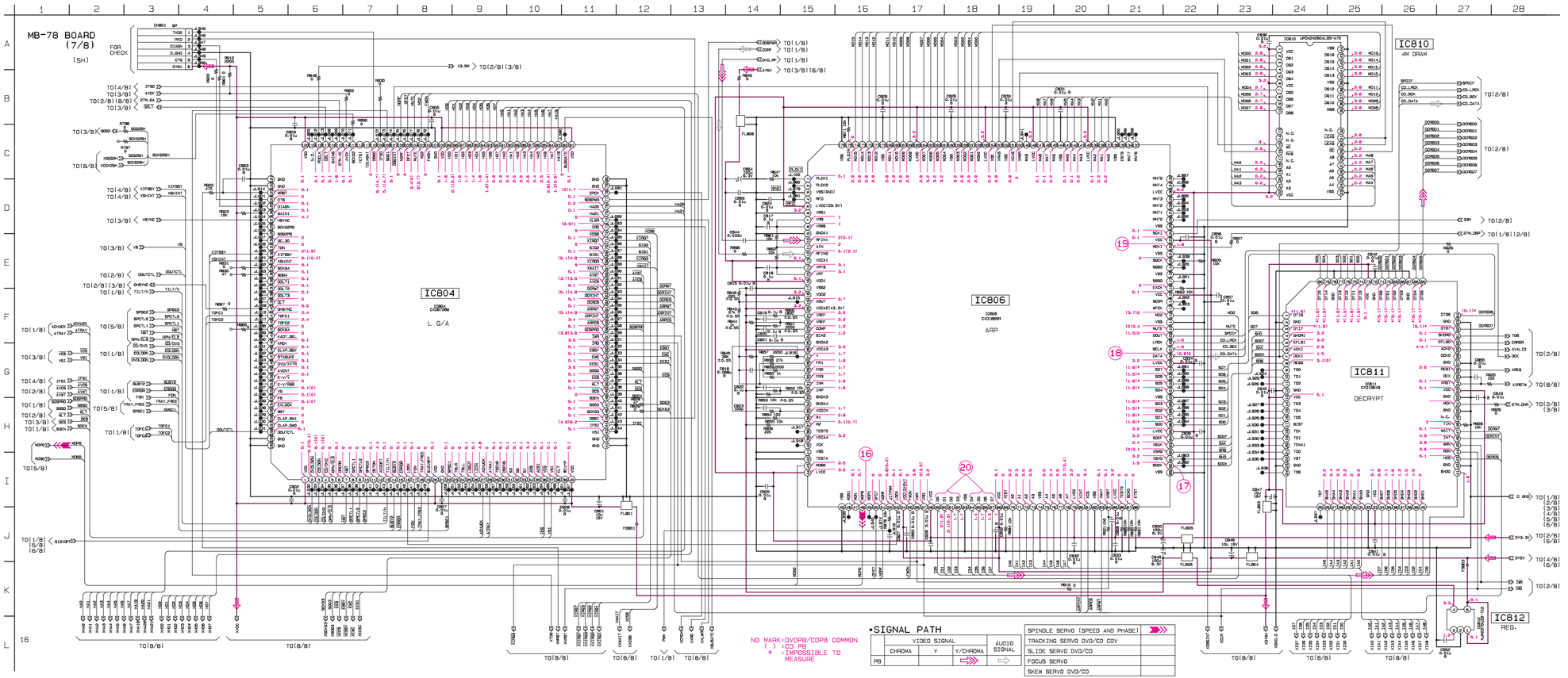


Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

NO MARK:DVDPB/CDPB COMMON
( ) :CD PB
* :IMPOSSIBLE TO MEASURE

MB-78 (DIGITAL PROCESS 1) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

• See page 4-13 for MB-78 BOARD printed wiring board.



16 IC806 ⑯ DVD
56μsec 2.5Vp-p

17 IC806 ⑰ DVD/CD
3.375MHz 3.3Vp-p

18 IC806 ⑱ CD
1V/div 0.2μsec/div

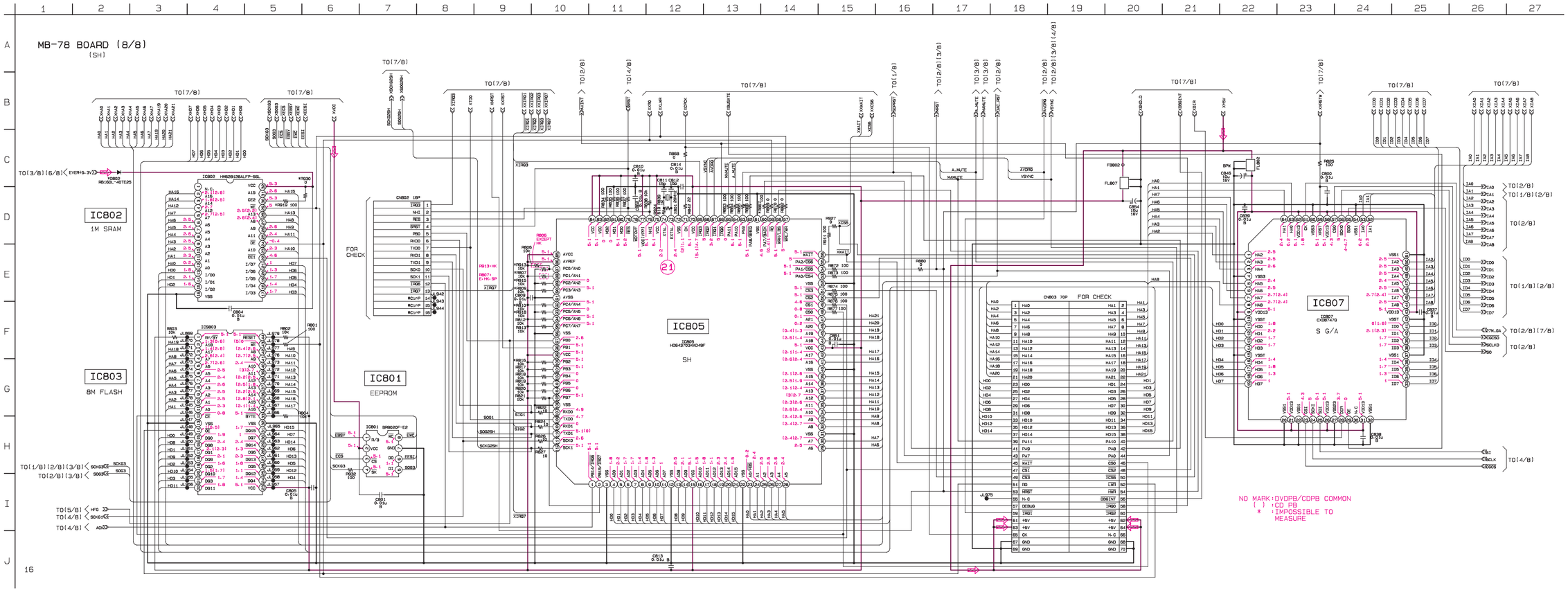
19 IC806 ⑲
27MHz 5.4Vp-p

20 IC806 ⑳㉑㉒㉓ DVD
2V/div 0.1μsec/div

21 IC805 ㉑ DVD/CD
20MHz 5.4Vp-p

MB-78 (DIGITAL PROCESS 2) SCHEMATIC DIAGRAM
—Ref. No.: MB-78 Board; 1,000 Series—

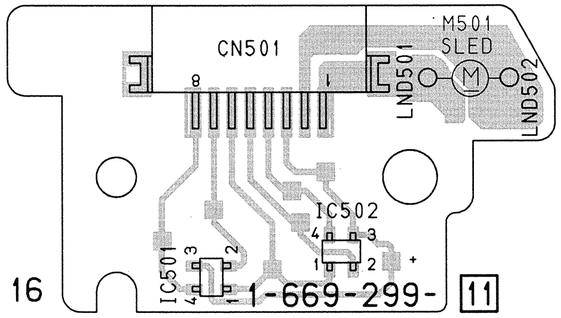
• See page 4-13 for MB-78 BOARD printed wiring board.



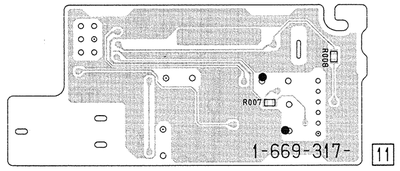
FG-43 (SLED MOTOR), HP-98 (PHONES) PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS
—Ref. No.: FG-43 Board, HP-98 Board; 2,000 Series—

There are few cases that the part printed on this diagram isn't mounted in this model.

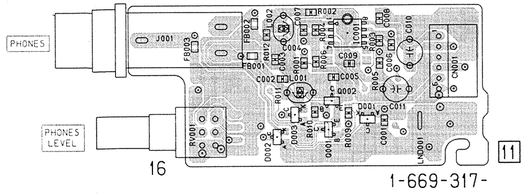
FG-43 BOARD(SIDE B)



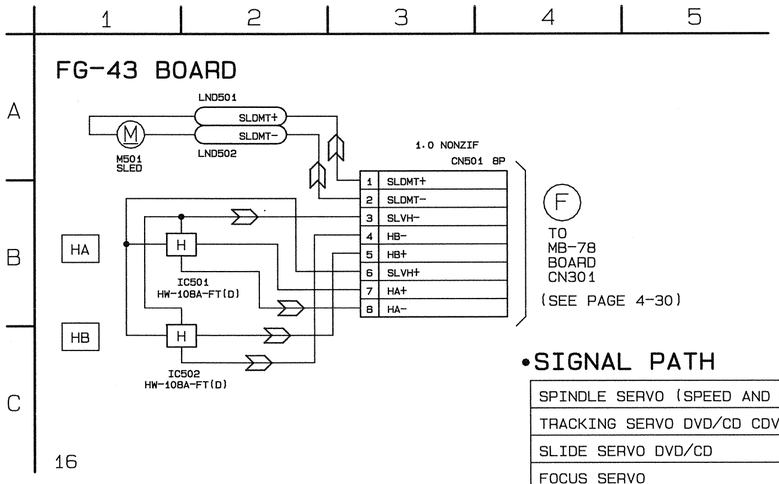
HP-98 BOARD (SIDE A)



HP-98 BOARD (SIDE B)

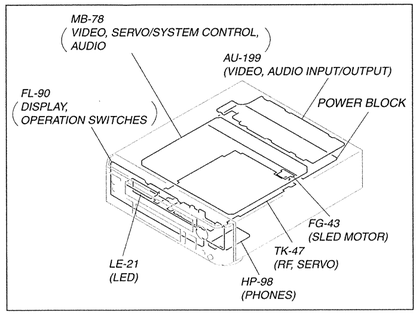


FG-43 BOARD

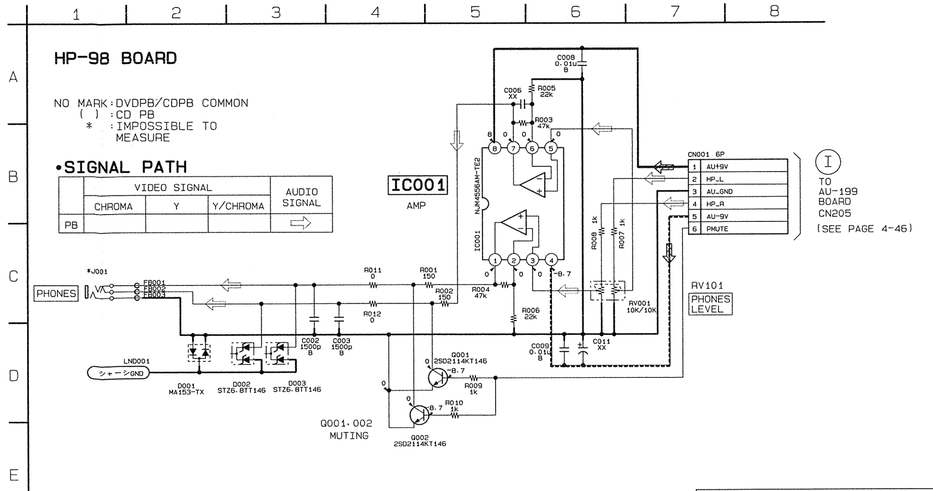


•SIGNAL PATH

SPINDLE SERVO (SPEED AND PHASE)	
TRACKING SERVO DVD/CD CDV	
SLIDE SERVO DVD/CD	≫
FOCUS SERVO	
SKEW SERVO DVD/CD	

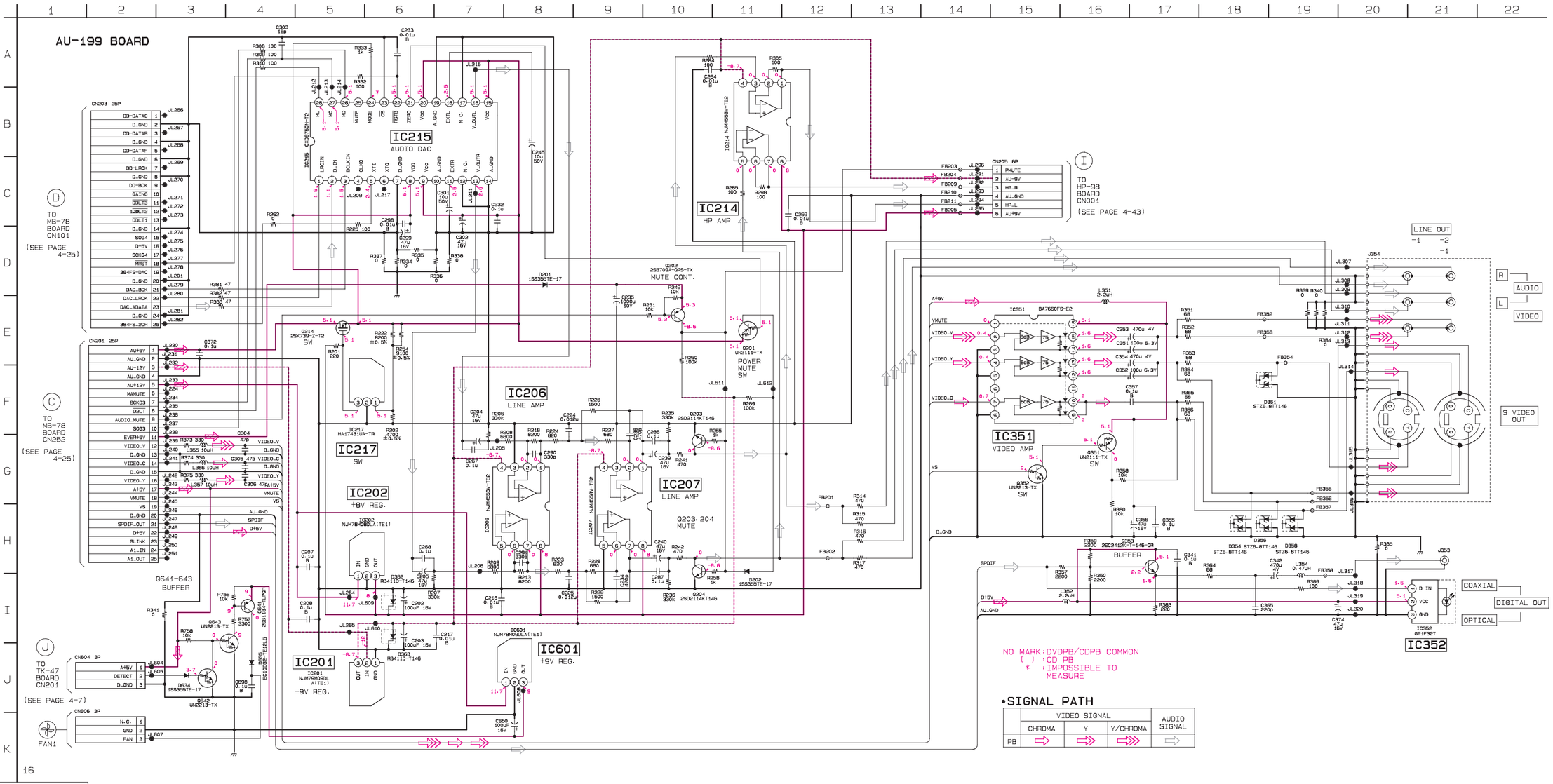


HP-98 BOARD



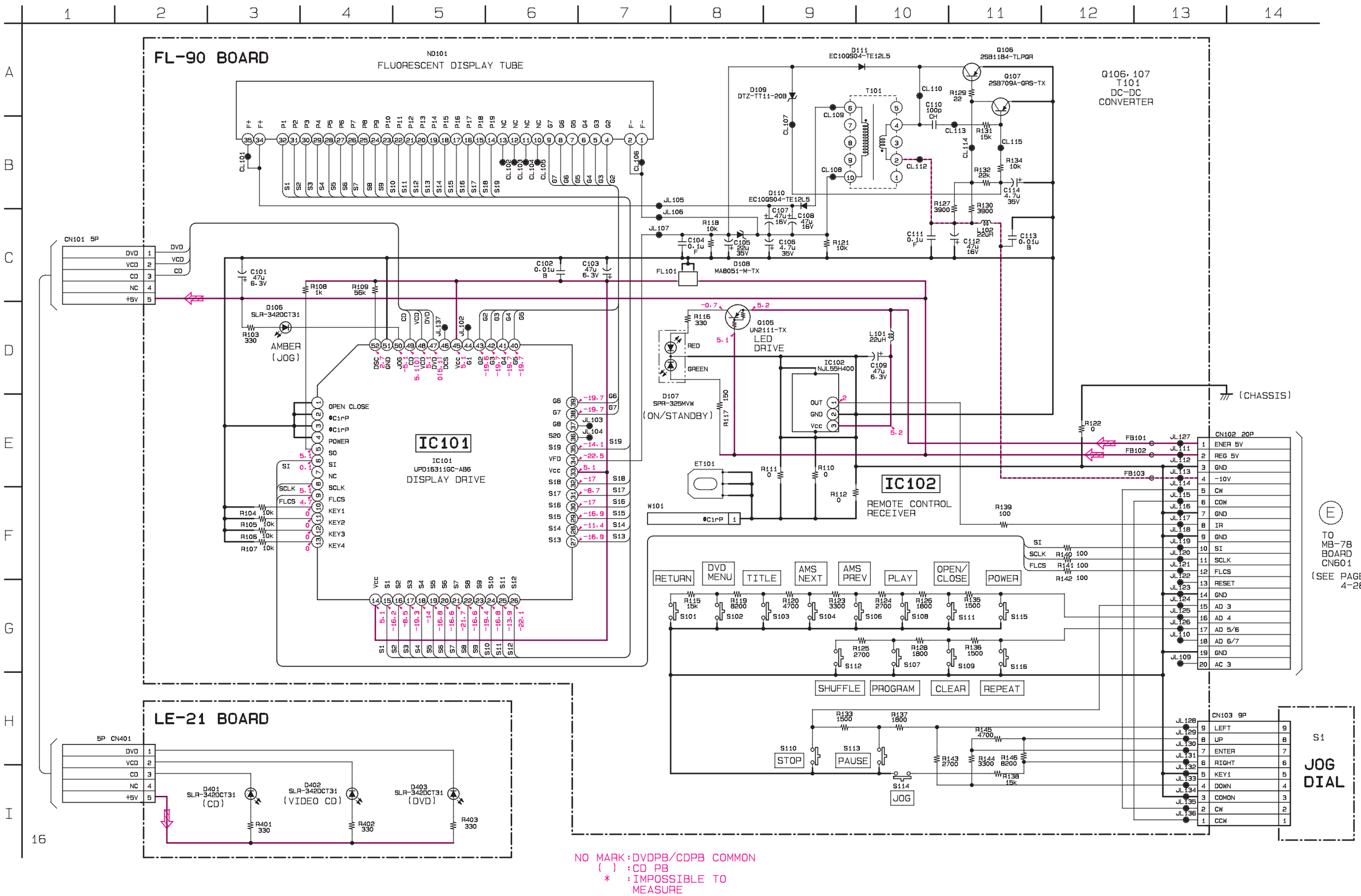
AU-199 (VIDEO/AUDIO INPUT/OUTPUT) SCHEMATIC DIAGRAM

—Ref. No.: AU-199 Board; 2,000 Series—



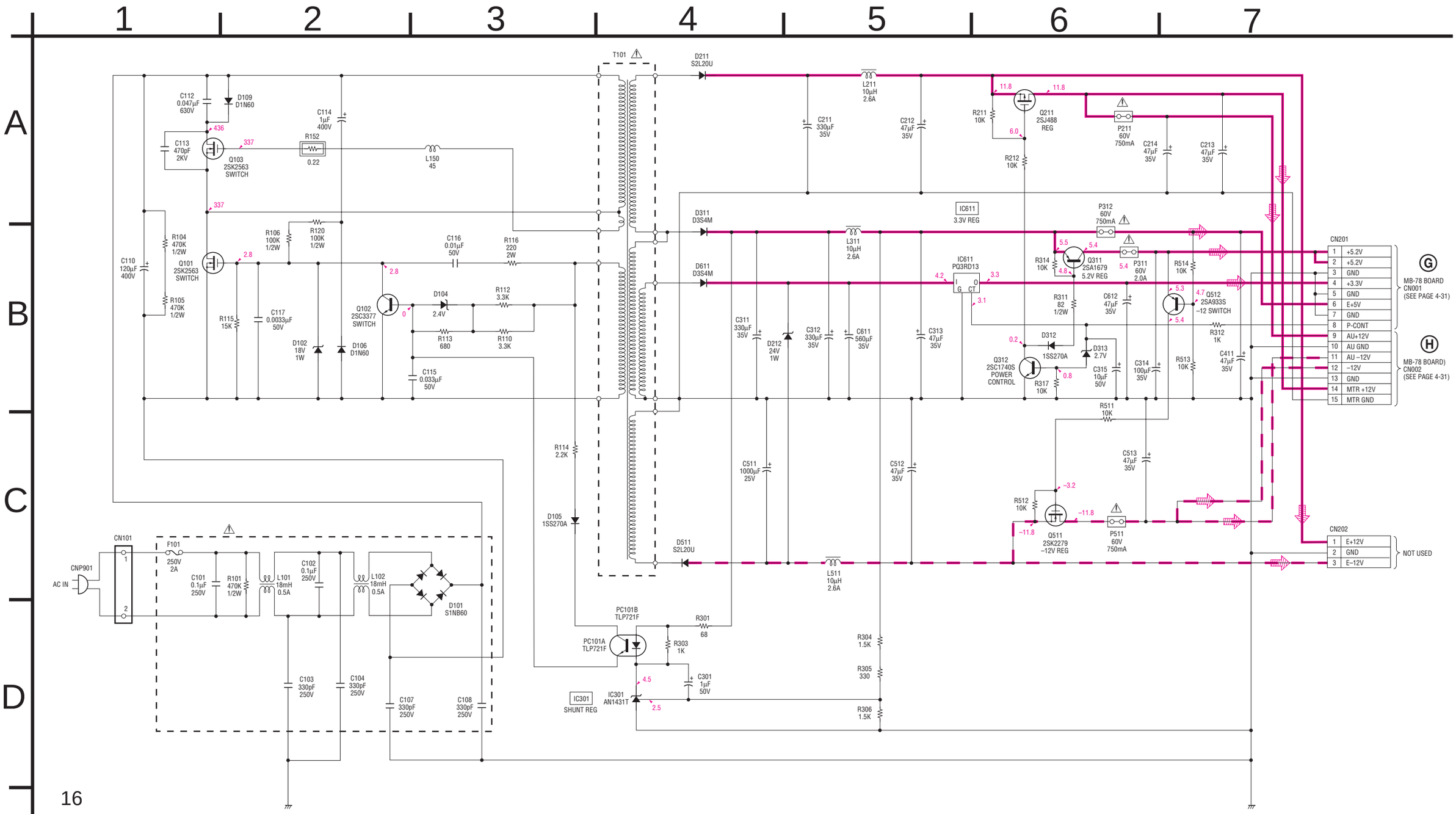
FL-90 (DISPLAY, OPERATION SWITCHES), LE-21 (LED) SCHEMATIC DIAGRAM

—Ref. No.: FL-90 Board, LE-21 Board; 2,000 Series—



POWER BLOCK HS-930SH (SWITCHING REGULATOR) SCHEMATIC DIAGRAM
— Ref. No. HS-930SH Board; 8,000 Series —

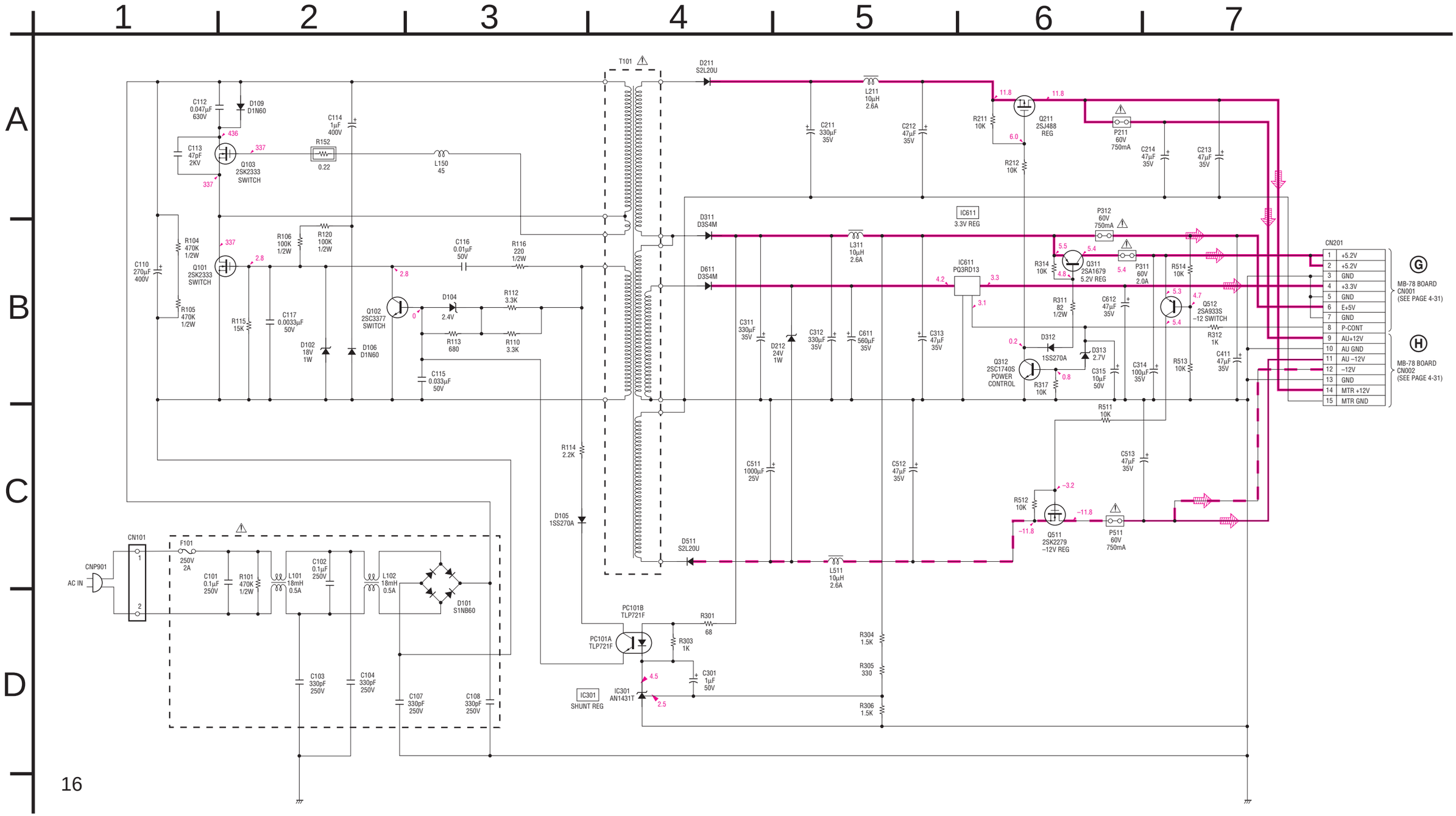
EXCEPT E MODEL



Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

POWER BLOCK HS-930SF (SWITCHING REGULATOR) SCHEMATIC DIAGRAM
— Ref. No. HS-930SH Board; 9,000 Series —

E MODEL



16

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.